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LIES, DAMNED LIES AND QUALITY MANAGEMENT SYSTEMS: A PILOT CASE STUDY

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An externally accredited ISO 9001 Quality Management System is a prerequisite for tendering for many public-sector projects, leaving Small to Medium Enterprises little choice but to implement such a system. A link between the motivation behind implementation of a Quality Management System and its effectiveness has been found through quantitative analysis of survey results in recent studies. However, existing studies have failed to examine the mechanisms behind this link. This paper aims to address this gap in knowledge, through a case study investigation of a mid-sized Mechanical Electrical and Plumbing Contractor. Five interviews with key individuals are undertaken and analysed using qualitative analysis software. The company's Quality Management System documents are used for comparison with actuality. The findings indicate that, although they take pride in the quality of their work most interviewees perceive a disconnect between the Quality Management System and the delivery of quality 'on the ground'. The system is perceived as a paperwork exercise, required mainly to maintain accreditation; hence 'stretching the truth', backdating documents and deception in ISO 9001 procedures are commonplace. The desire to hold ISO 9001 accreditation for the 'certificate on the wall' creates a culture which undermines its implementation.

Keywords: ISO 9001, deception, Quality Management Systems, quality control

INTRODUCTION

ISO 9001 is a prerequisite for tendering for many construction sector projects (Chan and Tam 2000; Ribeiro 2000; Gunning and McCallion 2007). Although the standard is used extensively, its effectiveness has yet to be established. Research has used quantitative methods to examine its financial and management benefits, with conflicting results (Heras *et al.*, 2002; Douglas *et al.*, 2003, Llopis and Tari 2003; Sampaio *et al.*, 2010). Corbett *et al.*, (2005) find a link between enhanced business performance and use of ISO 9001; whereas Terziovski *et al.*, (1997) find no significant correlation between business improvement and ISO 9001 certification. Quantitative examination of the impact of ISO 9001 can be problematic; both Heras *et al.*, (2002) and Dick *et al.*, (2008) find the contribution made by the ISO 9001 system to an organisation's performance is difficult to separate from other factors. The work of Heras *et al.*, (2002) illustrates the potential dangers in inferring that ISO 9001 certification leads to superior business performance (2002: 774). Use of ISO 9001 is intended to ensure consistency, improved customer service (Benner and Tushman 2003) in addition to regulatory and statutory compliance. Gotzamani and Tsiotras (2001), Douglas *et al.*, (2003) and Sampaio *et al.*, (2010) have

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used quantitative analysis to examine the relationship between motivation to introduce ISO 9001 for internal reasons, (that is, to improve business processes), and its full and effective implementation.

The ISO 9001 standard is essential for all contractors who wish to undertake public sector works. This accounts for approximately 40% of construction industry turnover in the United Kingdom (UK) in 2010 (CIOB 2010) and 50% in Northern Ireland in 2012 (CITB 2012). The compulsion for accreditation to tender for public sector work suggests that some organisations achieve accreditation merely to meet this tendering prerequisite. If this is the case, the ulterior aim of the ISO 9001 system would be to maintain a façade of compliance which is sufficient to pass external audits, described by MacLean and Benham (2010) as 'regulatory decoupling.' Whether this is the case, and what happens beneath the façade, has yet to be examined in construction management literature.

Although the studies outlined above have examined the effectiveness of the ISO 9001 system and motivations for its implementation with mixed results, none have delved deeper into the underlying mechanisms behind this relationship; particularly by applying a qualitative case study approach. Therefore, this study examines the mechanisms behind the day-to-day operation of an ISO 9001 Quality Management System in a mid-sized Mechanical Electrical and Plumbing (MEP) firm. The case study method used, in combination with the trust developed between the researcher and interviewees, enables detailed and open examination of the thoroughness and effectiveness of, and shortcomings in, the implementation of the ISO 9001 system in context.

ISO 9001 QUALITY MANAGEMENT IMPLEMENTATION

Quality Management implementation is more effective when quality management values are adopted by an organisation (Lagrosen and Lagrosen 2005). Gotzamani and Tsiotras (2001) suggest that companies claim they gain certification in order to improve quality internally; however, their 'true' motives may come from external pressure and a desire for positive publicity. They argue that this approach leads to a focus on short term benefits, leading to reduced overall success. The motivation behind accreditation can determine how comprehensively the standard is implemented (Gotzamani and Tsiotras 2001). Gunning and McCallion (2007) find that 40% of construction companies surveyed did not fully apply the ISO 9001 standard, using it merely as a marketing device. The benefits of certification are greater when a company's motivations are focussed primarily on the internal benefits to be gained (Llopis and Tari 2003), as these companies are more likely to fully embrace implementation of the system. Genuine commitment and leadership from top management is key to successful quality system implementation (Chileshe 2006), as the involvement of high level management is critical to its success (Douglas *et al.*, 2003). Clearly the belief that a system will make a positive impact will lead to more willing and enthusiastic implementation. Martinez-Costa and Martinez-Lorente (2007:496) suggest that companies who are accredited to ISO 9001 for external reasons, for example as a pre-requisite for tendering, might be 'going through the motions' of applying the system and trying to deceive the auditors. University staff were observed by Van Kemenade *et al.*, (2011) subverting quality system implementation through dramaturgical compliance, if rules were over complex.

EXAGGERATION, DECEPTION AND DISHONESTY

Jenkins and Delbridge (2017) studied workplace deceit and formulated a model which suggests that deception can become normalised in an organisation through

institutionalisation, socialisation and rationalisation. This model is used as a framework to examine deception and dishonesty:

Institutionalisation

In order to thrive, Jenkins and Delbridge (2017) find that dishonesty must take place at multiple levels in an organisation's hierarchy and be condoned by the organisation to some extent, whether explicitly or implicitly. MacLean and Benham (2010) describe the process of 'decoupling' of regulation from day to day activity, where informal business as usual processes, are protected from scrutiny, whilst maintaining a veneer of compliance. 'Symbolic' processes used for 'window dressing' lack management support leading to the delegitimisation of the regulatory system, creating a 'legitimacy façade' and institutionalising misconduct (MacLean and Benham 2010). Implicit permission for wrongdoing can come through lax or unobtrusive regulatory control (Palmer 2012). When an organisation's values do not align with those of a regulatory system, where it perceives rules as unnecessary, it does not anticipate a harmful outcome from non-compliance and tolerates deviation from procedures (Gilliland and Manning 2002).

Socialisation

Group behaviour with shared norms and values can reinforce and maintain deception in an organisation, by creating a context for deceit (Jenkins and Delbridge 2017: 20). Unethical behaviour can be contagious (Gino and Bazerman 2009) as new recruits, keen to fit into the culture of the company, are taught to disregard unethical behaviour. An environment where unethical acts are accepted can lead to further deviations, where they change social norms and become such an integral part of daily behaviour, that they are no longer of note (Gino and Bazerman 2009). Conversely, where dishonesty is likely to be uncovered and the consequences are harsh, people balance the advantage of deception with the ensuing punishment and are less likely to lie (Gneezy 2005).

Rationalisation

Deception flourishes when resultant harm is denied or minimised (Jenkins and Delbridge 2017). Lies and deception can be justified as a means to avoid hurt feelings and difficult questions. Most people perceive themselves to be ethical and rationalise deception as a 'white lie' that will have little impact (Gino and Bazerman 2009). Shalvi *et al.*, (2011) describe this protection of self-image as 'ethical manoeuvring.' People are likely to justify deception to themselves and others; thus, preferring to lie modestly than undertaking deception on such a scale that their perception of themselves as morally just is no longer maintainable (Shalvi *et al.*, 2011). Similarly, if the consequences of deceit are not seen as important or hurtful to any individual, the ethical self-image is maintained (Gneezy 2005). In construction, the fragmented nature of the industry and prevailing culture, permit widespread practices of corruption, dishonesty and unethical behaviour (Arewa and Farrell 2015).

RESEARCH METHOD

It is incumbent on any study with the word 'lies' in the title to state its claim for legitimacy of knowledge and thus 'truth.' The study adopts a critical realist approach. This asserts a realist ontology - that a 'real' world exists, but that this world is understood imperfectly through the filter of our experience and mental constructs recognising the value of an interpretative perspective (Bhaskar, 2008). In addressing the 'critical' aspect, the results are considered in the context of the interviewees' comments and how they align with the literature and their peers' interviews. This standpoint necessitates an

acknowledgement that the researcher's embedded values have an unavoidable impact on the conduct and interpretation of the research, regardless of endeavours otherwise.

In order to establish grounding in the research, a desk based narrative review of recent peer reviewed works was undertaken. This ascertained a gap in knowledge and identified themes to inform the following investigation. Recent studies have used quantitative methods to examine the effectiveness of quality management systems, but none have used qualitative analysis to probe this area in depth and in context, hence a qualitative method was applied. A single case study was undertaken as a pilot to a larger subsequent investigation. The case study approach enabled in-depth examination of complex issues in context (Fellows and Liu 2008), broaching 'how' and 'why' questions (Yin 2009). The organisation examined is a typical mid-sized MEP construction company, with an ISO 9001 system which has been in operation for 6 years; thus, well established within the company. The organisation is known to the researcher, who has built up a relationship and established trust with those selected for interview. A non-probability and purposive sampling method was adopted to aid interviewee selection. The General Manager, Quality Manager, Quality Management Consultant, and two Contracts Managers ('A' and 'B') were interviewed. Semi structured interviews were held at each interviewee's place of work, during December 2016 and January 2017, lasting between 50 to 80 minutes. The semi structured interview format allowed main themes to be covered in each interview to enable comparison, but permitted further in-depth exploration of each interviewee's experiences which may not be covered by extant literature. Prior to the start of each interview, an information and consent sheet was forwarded, emphasising that all responses were confidential and anonymous. An assurance that confidentiality would be maintained was repeated verbally, immediately prior to each interview. Efforts were made to ensure that each interviewee felt comfortable with the interview, and with proposed themes drafted, to reinforce the established trusting relationship and to facilitate frank and honest responses as far as possible. The interview topics were developed from the literature review and outlined in the interview protocol sheet in three main sections - background information, motivation and assessment of the usefulness of the quality management system, and quality management compliance. With the permission of the interviewees, each interview was audio recorded and subsequently transcribed verbatim. The transcribed interviews yielded 86 pages and 41,406 words of information.

Case notes were made from the inspection of quality management files held on-site at two locations and at head office. The files were compared to procedures set out in the organisation's quality manual and gaps in compliance were noted. Notes were made regarding whether the files were as-new or heavily used, and whether this circumstantial evidence could suggest potential non-compliance with procedures.

The transcripts and case notes were uploaded into Computer Assisted Qualitative Data Analysis Software. The first cycle of exploratory coding was followed by a second cycle of more detailed pattern and longitudinal coding (Saldana 2009), during which individual responses were compared internally for contradiction. Once themes were identified, categories were refined and relationships and links established through axial coding. Two main categories 'Quality Management System' and 'Deception' were used to organise the data. Qualitative analysis has been described as a 'narrative of a narrative'. In the analysis that follows, common themes are illustrated through direct quotation to allow the respondents to speak for themselves.

FINDINGS

Pride / Quality of delivery

The quality of each completed project is central to the organisation's core values. All five interviewees take satisfaction in the quality of their work and the organisation's widely acknowledged reputation for quality. The General Manager, when asked for the most important factor in the delivery of quality by the firm, replies pride...I wouldn't want to do it if we couldn't do it 100% and that's been instilled in every person that we have. The staff in the company are a small band of highly skilled employees, most of whom have been with the organisation for over 10 years. The company has a very low turnover of staff. The Quality Management Consultant observes that the guys are very interested in showing you around, you know they're interested in showing you the quality of their work. This applies equally to the staff who are poor at paperwork and Quality Management compliance, as the Quality Management Consultant illustrates: the boys that are bad at the paperwork they've come round and will show you this, they're interested in their job, they're interested in what they do. The organisation does not use the cheapest fittings as this kind of short term cost cutting measure will cost in the long run through defect correction - as the General Manager put it, it's going to be found out if things aren't right and harm the organisation's standing.

Purpose of the ISO 9001 system

All interviewees agreed that the ISO 9001 system is installed and maintained to enable the organisation to continue to tender for government contracts. The Quality Manager states for no other reason; on a purely needs basis only according to the Quality Management Consultant. Public sector contracts account for the majority of the work undertaken by this organisation, with estimates varying from 80% (Contracts Manager A) to over 50% (Quality Manager). None of the interviewees can think of a similar organisation, in terms of size and sector, which does not have an ISO 9001 quality management system. ISO 14001 has recently been attained by the company, again for similar reasons, where this standard is also becoming a requirement to tender for public sector contracts.

The phrase certificate on the wall was common to several of the respondents, who describe the ISO 9001 quality management system merely in terms of a badge that must be kept, to maintain access to tendering opportunities, with little impact on the organisation's operations. This attitude is widespread amongst similar organisations according to the Quality Management Consultant. The Quality Management Consultant characterised the General Manager as someone who basically doesn't give a flying fiddle about the system. The commitment of senior management does not extend far beyond what is necessary to maintain the badge. Amongst those interviewed, time and energy expended on the system varied widely.

Separation of the Quality Management System and quality 'on the ground'

How, then, is the undeniable focus on quality within the firm aligned with a superficial commitment to the quality management system? The quality management system is seen as a completely separate entity to the delivery of quality on the ground; something which can be safely circumvented and ignored without adversely impacting on what matters-the end product. The Quality Manager bemoans the inability of the operational staff to see the integration of the system with quality. This may be due to the distance between operational staff and clients. They do not experience the additional demands of

sophisticated clients for additional documentation and certification, beyond merely MEP systems which work.

The Plumbers and Contract Managers came into the MEP sector to apply their skill, ingenuity and experience, to install excellent installations that satisfy their clients; not to process paperwork which they consider to be largely superfluous. When asked how he thought the ISO 9001 system has improved quality in the company, Contract Manager B responds ...do you mean the quality of workmanship? It hasn't degraded it or brought it down - it hasn't helped to make the quality better. I don't see it having any effect myself - well maybe it's had an effect in the office, with the paperwork and that, but not on site, on the ground. This sentiment is echoed across all interviewees. For instance, the Quality Manager observes The paperwork doesn't exist more or less for the boys; and even the ones that are good at doing it and record it at the time, doesn't necessarily make them any better at delivering; no definitely not ... If we didn't have this quality system, it wouldn't make any difference, the workmanship would still be the same, it's just the boys have more sheets to fill in.

Compliance with the ISO 9001 Quality Management System

The Quality Manager and Quality Management Consultant claim that the majority of people in the organisation do 'the bare minimum' to maintain and retain the quality management certification. This is with the exception of Contracts Manager A, whose participation is more enthusiastic. Those that most enthusiastically partake in the system, can see its use and describe the value and efficiencies which the system brings to their work. There was little staff consultation when the system was introduced, and little ongoing engagement and discussion between management and users, although according to the Quality Manager on paper there are loads of meetings. However, there is little appetite for engagement or discussion, as most interviewees and operatives just want to 'get on with the job.'

A few of the quality procedures are perceived generally as less useful to operatives. Some procedures are all for show according to the Quality Manager; in particular, the assessment of subcontractors. The firm has developed a relationship with its regular suppliers and assessment of suppliers is informal and ongoing. The Quality Management Consultant admits that this procedure is extraneous. All those interviewed who have to complete this sheet, admit to inputting fictional assessments, only if required by an imminent quality audit; an understandable reaction to paperwork which is not adding value and required solely for the purpose of the system and underlying audits.

None of the interviewees felt that their job security depended on their compliance with the quality management system, with few consequences for non-compliance and no rewards for compliance. If paperwork is not completed, the culprit will be asked by the Quality Manager to comply. Occasionally, the Quality Management Consultant will meet with the person responsible and help them to complete the information. The Quality Management Consultant has bent over backwards to help the organisation maintain the certificate if I didn't do what I was doing-and sometimes you're ... doing stuff you shouldn't do to fix it-they'd lose their standard. He describes himself as a victim of his own success; the more he does to help maintain the system, the more others rely on his intervention.

Exaggeration, Deception and the Quality Management System

The question 'have you ever exaggerated, pretended to comply, or made up paperwork to meet ISO 9001 procedures?' is asked towards the end of each interview, when a rapport

had been established. Some respondents are wary of giving a frank reply and at first deny any deviation from procedures. For instance, when asked, the General Manager at first replies 'no' but when probed more specifically, admits that he has backdated signatures and 'silly things like that.' The deviations tend to be minimised or justified as minor or unimportant, where the Quality Management Consultant characterises it as not lying but its close, and continues this is happening in 80% of all companies. Procedures and tests with 'life safety' implications are mentioned by several respondents as those which are never falsified, although many of these tests are required by Building Control or the client, and as such, could be considered as separate to the quality management procedures. In terms of completing paperwork, the Quality Manager states if it doesn't happen on site, then we have to make it up, and that just defeats the purpose of it.

Contradictions amongst respondents

The interviewees who are most able to admit to their failings at compliance with the quality management system are those who are most enthusiastic about its maintenance. Contracts Manager A, who has been characterised by the Quality Management Consultant as the best in the organisation at compliance, readily admitted to 'bluffing' procedures which he finds add no value; notably the assessment and selection of subcontractors. The two respondents described as largely non-compliant by the Quality Management Consultant, deny anything but complete compliance. When probed further, one of these respondents did admit to minor infringements; however, the other maintained that he never deviated from the system.

DISCUSSION

Exaggeration, concealment and deception in the quality management system is widespread throughout the case study organisation, although it is not consistent amongst respondents, nor explicit or organised. This deception follows the framework for workplace deceit proposed by Jenkins and Delbridge (2017). Firstly, the deceit is institutionalised. The analysis finds a text book example of regulation 'decoupling' as described by MacLean and Benham (2010), where compliance with the quality management system, and delivery of an MEP service, are considered as two separate entities by operatives. This separation can be seen as a by-product of the imposition of the system onto all contractors who wish to tender for government contracts. Under such conditions, it is logical that regulation and maintenance of the system be 'light touch' in order to maintain the 'certificate on the wall' with as little expense as possible. None of the interviewees thought that their job security depended on complying with the quality management system. The deviations, exaggerations and occasional deception required to maintain certification under these conditions are widespread, and acceptable within the company.

Secondly, subterfuge and deceit has been socialised. Although individual respondents each had a unique perspective of the quality management system, all were influenced by the shared norms and cultural context of the company. Deviating from quality procedures is not explicitly instructed nor openly condoned; however, there is a company culture of overlooking non-compliance, which creates and facilitates the context for deception.

Thirdly, deception was rationalised. The extent and impact of any deviation from quality procedures was minimised and justified as unimportant and minor issues. Many of the respondents stressed that life safety critical systems and checks were always carried out, and that the procedures which were exaggerated, backdated or fabricated, were unimportant.

CONCLUSION

This study has demonstrated that the quality management system of the study organisation is not being implemented as prescribed, with most operatives doing the minimum required to maintain the appearance of compliance. This can be attributed to regulatory decoupling and a normalisation of deceptive practices. It could be argued that this approach wastes the opportunity to use the quality management system to maximise its benefit to the organisation. It is needed to maintain tender opportunities, while even basic maintenance of the system and certification is expensive and time consuming. If the operatives were to be consulted, the system could be rationalised, with superfluous procedures dropped. With operative 'buy-in,' non-compliance could be characterised as no longer socially or institutionally acceptable, with negative consequences for the offender. This new approach would require a change of attitude from senior management; however, the recoupling of the system, which the operatives do not currently prioritise, with the delivery of service, which the operatives care deeply about, could increase the efficiency and overall quality of the service within the organisation.

This pilot study comprises only five interviews with documentary examination and corroboration. Although the Quality Management Consultant commented that the behaviour observed in this case study is widespread, generalisable findings cannot be drawn from this size of sample; hence further research is required. However, the study does highlight some pertinent issues, for the follow up study and for any research probing a sensitive issue such as 'quality' in an organisation. Even with privileged access and a long-established trusting relationship with the organisation and interviewees, some evasive and dishonest answers were provided. Some respondents felt compelled to demonstrate conformance and deliver answers reflecting this premise. Interestingly, those who most fully embraced the ISO 9001 system were more willing to admit their own failings, and those of the system. Those who maintained only surface compliance were most likely to deny deviation from the system to foster the illusion of complete conformance.

Despite the trust that has been established with all interviewees, some felt unable to tell the complete truth regarding their opinion of, and compliance with, the quality management system. The researcher's assurances of anonymity and handling all responses with sensitivity were underpinned by long established trusting relationships. Undoubtedly this led to a more frank and honest discussion than otherwise would have been the case. This pilot study raises questions regarding the validity and reliability of responses given by individuals and organisations when examining similar sensitive topics, where no prior long-standing relationship exists.

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